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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,817

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Yong Cheol Park

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EXAMINER

ALUNKAL, THOMAS D

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,817	<b>Applicant(s)</b> PARK ET AL.	
	<b>Examiner</b> THOMAS D. ALUNKAL	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 25, 26 and 28-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25, 26 and 28-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 9/23/08 have been fully considered but they are not persuasive.

Regarding applicant's arguments beginning on page 7 of Remarks, the applicant argues that the combined teachings of Hwang et al (hereafter Hwang)(US PgPub 2004/0076096) and Gotoh et al. (hereafter Gotoh)(US PgPub 2001/0043800) do not disclose all of the claimed limitations of independent claim 25 (and similarly independent claims 31, 34, and 46). Specifically, the applicant argues that "though Hwang discloses the TDDS as having a number of pointers, Hwang does not appear to disclose the TDDS having pointers pointing to any data relating to recorded and non-recorded areas". However, it is noted that in the previous Office Action dated 5/23/08, the combined teachings of Hwang and Gotoh are relied upon for the disclosure of the limitations of claim 1. Namely, when the SBM of Gotoh is provided to the defect management structure of Hwang, the TDDS of Hwang contains pointers for pointing to data related to the temporary defect management area, which includes the SBM. Thus, the combined teachings of Hwang and Gotoh disclose the argued limitations above.

Regarding the newly added limitations to independent claims 25, 31, 34, and 46, these limitations will be addressed in the art rejections below.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-26 and 28-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (hereafter Hwang)(US PgPub 2004/0076096) and in view of Gotoh et al. (Gotoh) (US PgPub 2001/0043800).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Regarding claim 25, Hwang discloses a computer readable medium having a data structure for managing a data area of the computer readable medium (see Title and Abstract), comprising: a first management area storing a data block, the first management area being a temporary defect management area (Figure 3A, TDMA), the data block having information (Figure 4A, TDDS) which includes pointers for pointing to addresses of various addresses in the TDMA (Paragraph 0062), the data block including a plurality of sectors (Figure 4A), and the information being recorded in a last sector of the data block (Figure 4A, where TDDS is recorded in the final sector of the TDMA); and a second management area storing a latest data block recorded in the first management area when no further recording can be made on the computer medium, the second management area being a defect management area (Figure 3A, DMA and

Art Unit: 2627

Paragraph 0036). Hwang does not specifically disclose a first information including recordation status indicating recorded areas and non-recorded areas of the data area. In the same field of endeavor, Gotoh discloses a recording medium with a defect management structure (Figure 1) which includes a space bit map (Figure 1, Element 141). The space bit map includes recordation status information which indicates both recorded and non-recorded areas of the volume space (Paragraphs 0160 and 0172).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the space bit map for monitoring the recordation status of the volume space of Gotoh to the defect management data structure of Hwang, motivation being to efficiently monitor the recordation status of the user data area, which prevents unwanted recording errors when attempting to record to previously recorded areas of the disc.

Furthermore, Hwang and Gotoh do not specifically disclose wherein the data having the first information and the second information is composed of a single recording unit.

However, it would have been an obvious matter of design choice to provide the temporary defect management area of Hwang with a single recording block including both a TDDS and SBM since the applicant has not disclosed that providing the TDDS and SBM in a single recording block solves any stated problem or is for any particular purpose. Furthermore, the TDMA of Hwang (Figures 4A and 4B) includes additional storage space adjacent to the TDDS which easily accommodates the TDDS and SBM in a single recording block.

Regarding claims 26, Gotoh discloses wherein the first information indicates recordation status of the data area on a recording unit by recording unit basis (Paragraph 0172).

Regarding claim 28, Hwang discloses wherein the second information includes a second pointer pointing to an address where a defect list is recorded (Paragraph 0062).

Regarding claim 29, Hwang discloses wherein the address is a first physical sector number of a location where the first information is recorded (Paragraph 0068).

Regarding claim 30, Hwang discloses where the first and second pointers identify most current versions of the first information and the defect list, respectively, as of when the second information is recorded (Paragraph 0049).

Regarding claim 31, Hwang discloses a method of recording management data on a recording medium (see Title and Abstract), comprising: recording a data block in a first management area, the first management area being a temporary defect management area (Figure 3A, TDMA), the data block having information (Figure 4A, TDDS) which includes pointers for pointing to addresses of various addresses in the TDMA (Paragraph 0062), the data block including a plurality of sectors (Figure 4A), and the second information being recorded in a last sector of the data block (Figure 4A, where TDDS is recorded in the final sector of the TDMA); and recording a latest data block recorded in the first management area in a second management area when no further recording can be made on the recording medium, the second management area being a defect management area (Figure 3A, DMA and Paragraph 0036). Hwang does not specifically disclose a first information including recordation status indicating

Art Unit: 2627

recorded areas and non-recorded areas of the data area. In the same field of endeavor, Gotoh discloses a recording medium with a defect management structure (Figure 1) which includes a space bit map (Figure 1, Element 141). The space bit map includes recordation status information which indicates both recorded and non-recorded areas of the volume space (Paragraphs 0160 and 0172).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the space bit map for monitoring the recordation status of the volume space of Gotoh to the defect management method of Hwang, motivation being to efficiently monitor the recordation status of the user data area, which prevents unwanted recording errors when attempting to record to previously recorded areas of the disc.

Furthermore, Hwang and Gotoh do not specifically disclose wherein the data having the first information and the second information is composed of a single recording unit.

However, it would have been an obvious matter of design choice to provide the temporary defect management area of Hwang with a single recording block including both a TDDS and SBM since the applicant has not disclosed that providing the TDDS and SBM in a single recording block solves any stated problem or is for any particular purpose. Furthermore, the TDMA of Hwang (Figures 4A and 4B) includes additional storage space adjacent to the TDDS which easily accommodates the TDDS and SBM in a single recording block.

Regarding claim 32, Hwang discloses wherein the second information includes a second pointer pointing to an address where a defect list is recorded (Paragraph 0062).

Regarding claim 33, Hwang discloses where the first and second pointers identify most current versions of the first information and the defect list, respectively, as of when the second information is recorded (Paragraph 0049).

Regarding claim 34, Hwang discloses a method of reproducing data from recording medium (Paragraph 0015), comprising: reproducing at least a portion of data recorded on the recording medium based on a data block recorded in a first management area of the recording medium when further recording can be made on the recording medium, the first management area being a temporary defect management area (Figure 3A, TDMA and Paragraph 0037), the data block having information (Figure 4A, TDDS) which includes pointers for pointing to addresses of various addresses in the TDMA (Paragraph 0062), the data block including a plurality of sectors (Figure 4A), and the second information being recorded in a last sector of the data block (Figure 4A, where TDDS is recorded in the final sector of the TDMA); reproducing at least a portion of data recorded on the recording medium based on a data block recorded in a second management area of the recording medium when no further recording can be made on the recording medium, the second management area being a defect management area ((Figure 3A, DMA and Paragraph 0036), wherein the data block in the second management area is based on the latest data block recorded in the first management area (Paragraph 0049). Hwang does not specifically disclose a first information including recordation status indicating recorded areas and non-recorded areas of the



Art Unit: 2627

data area. In the same field of endeavor, Gotoh discloses a recording medium with a defect management structure (Figure 1) which includes a space bit map (Figure 1, Element 141). The space bit map includes recordation status information which indicates both recorded and non-recorded areas of the volume space (Paragraphs 0160 and 0172).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the space bit map for monitoring the recordation status of the volume space of Gotoh to the defect management method of Hwang, motivation being to efficiently monitor the recordation status of the user data area, which prevents unwanted recording errors when attempting to record to previously recorded areas of the disc.

Furthermore, Hwang and Gotoh do not specifically disclose wherein the data having the first information and the second information is composed of a single recording unit.

However, it would have been an obvious matter of design choice to provide the temporary defect management area of Hwang with a single recording block including both a TDDS and SBM since the applicant has not disclosed that providing the TDDS and SBM in a single recording block solves any stated problem or is for any particular purpose. Furthermore, the TDMA of Hwang (Figures 4A and 4B) includes additional storage space adjacent to the TDDS which easily accommodates the TDDS and SBM in a single recording block.

Regarding claim 35, Hwang discloses wherein the second information includes a second pointer pointing to an address where a defect list is recorded (Paragraph 0062).

Regarding claim 36, Hwang discloses where the first and second pointers identify most current versions of the first information and the defect list, respectively, as of when the second information is recorded (Paragraph 0049).

Regarding claim 37, Hwang discloses wherein the first management area includes space to record a subsequent data block having the first information different from the first information in the data block (Figures 4A-4B).

Regarding claim 38, Gotoh discloses wherein the first information in the subsequent data block reflects changes in the recordation status since the data block was recorded (Paragraph 0172).

Regarding claim 39, Gotoh discloses recording a subsequent data block in the first management area, the subsequent data block having first information different from the first information in the data block (Paragraph 0172).

Regarding claim 40, Gotoh discloses wherein the first information in the subsequent data block reflects changes in the recordation status since the data block was recorded (Paragraph 0172).

Regarding claim 41, Hwang discloses wherein the first management area includes more than one of the data blocks and the reproducing step reproduces based on a most recently recorded one of the data blocks (Paragraph 0036).

Regarding claim 42, Hwang discloses wherein the most recently recorded one of the data blocks includes a most current version of the first and second information (Paragraph 0049).

Regarding claims 43-45, Hwang discloses wherein only the last sector includes the second information (Figure 4A, where TDDS is recorded in the final sector of the TDMA).

Apparatus claims 46 and 47 are drawn to the apparatus corresponding to the method of using same as claimed in claims 31 and 33. Therefore apparatus claims 46 and 47 correspond to method claims 31 and 33, and are rejected for the same reasons of obviousness as used above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2627

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gotoh et al. (US 6,581,167) disclose an information recording medium, information recording method, and information recording/reproduction system. Takahashi (US 5,914,928) discloses an information recording disk having a replacement area. Ueda et al (US PgPub 2001/0026511) disclose an information recording medium. Ito et al. (US 6,160,778) discloses an information recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS D. ALUNKAL whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas D Alunkal/  
Examiner, Art Unit 2627

/Wayne Young/  
Supervisory Patent Examiner, Art Unit 2627